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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Isabelle AFRIAT

SERIAL NO.: 09/884,949

FILED: JUNE 21, 2001

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EXAMINER: BERMAN

GROUP ART UNIT: 1619

FOR: COMPOSITION IN THE FORM OF  
A WATER-IN-OIL EMULSION WITH  
A VARIABLE SHEAR RATE AND  
METHODS OF USING THE SAME

DECLARATION UNDER 37 C.F.R. 1.132

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

I, Veronique Chevalier, hereby declare:

1. I am employed by L'ORÉAL as an engineer and have experience in the field of emulsions, particularly water-in-oil (W/O) emulsions, and their use in cosmetic and/or dermatological compositions.
2. I understand the English language.
3. The following observations and experiments were carried out by me or under my direct supervision and control.

4. The two W/O emulsions identified below were prepared. Both of these emulsions represent emulsions of the present invention.

Composition	658463-2	658463-3
Dimethicone copolyol (KF-6015)	1.84%	1.21%
Pentacyclomethicone	8.66%	8.24%
NaCl	2.5%	1.72%
Glycerin	7%	4.83%
Water	80%	84%
Total	100%	100%
Macroscopic aspect	Mate white cream	Mate white cream

5. Both of these emulsions were subjected to several different shear stresses to examine the rheological properties of the emulsions under these conditions. Typically, when compositions are applied to skin, the user applies a shear stress of about 100 Pa to about 1000 Pa. Thus, the applied shear stress represents forces to which W/O emulsions are subject when applying the emulsions to skin. Attached to this declaration are two graphs depicting the results observed when each of these W/O emulsions was subjected to the different shear stresses. The graphs depict shear rates (vertical axis) as a function of time (horizontal axis) for various applied shear stresses (for example, 50 Pa, 100 Pa, etc.). Measurements were made using a Rheometer RS 150 Haake at 25 (degrees) C.

6. The graph for these W/O emulsions reflect lines which are not flat, thereby indicating that both W/O emulsions, containing 80% water/89.5% aqueous phase

(658463-2) and 84% water/90.55% aqueous phase (658463-3) readily Abreak $\equiv$  (that is, suddenly become fluid) under shear stresses applied to the emulsions.

7. Similarly, in the declaration submitted on July 24, 2002, in connection with this application, the experimental results indicate that W/O emulsions containing slightly more than 80% aqueous phase (example 1 and CM 3/1) and 86.55% aqueous phase (CM 3/2) readily "break" when applied to skin.

8. Thus, the data set forth in this declaration and the July 24, 2002 declaration indicate that W/O emulsions of the present invention having 80% aqueous phase, 86.55% aqueous phase, 89.5% aqueous phase and 90.55% aqueous phase readily Abreak $\equiv$  when applied to skin. When a W/O emulsion Abreaks $\equiv$  more of the aqueous phase becomes available for contact with the skin to which the emulsion is applied, making the W/O emulsion feel less heavy and oily to the skin. Having more aqueous phase available for contact with the skin gives the W/O emulsion a fresher feeling upon application to the skin.

9. In contrast, the July 24, 2002 declaration indicates that W/O emulsions having 70% or less of the same aqueous phase (that is, emulsion CM 3/5) do not readily Abreak $\equiv$ . Thus, W/O emulsions having 70% or less aqueous phase do not have as much aqueous phase available for contact with the skin and, thus, do not have the same feeling of freshness upon application which W/O emulsions having 80% or more aqueous phase have.

10. This difference in Abreak $\equiv$  properties and, thus, ability to afford freshness upon application to skin between W/O emulsions containing 80% or more aqueous phase and those containing 70% or less aqueous phase is significant in the cosmetic field where

freshness upon application to skin is desirable in products. Moreover, this difference between such emulsions was unexpected and surprising.

11. Finally, the fact that the W/O emulsions of the present invention did not readily break at all shear rates tested is not relevant. The significant point from the experimental data discussed herein is that the W/O emulsions of the present invention readily break when applied to skin at shear stress forces to which W/O emulsions are typically subject upon such application, whereas the comparative examples do not.

12. The undersigned petitioner declares further that all statements made herein of her own knowledge are true and that all statements made on information and belief are believe to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

13. Further deponent sayeth not.

Chevalier, Veronique  
Name

V. Chl  
Signature

11<sup>th</sup> August 03  
Date